

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for establishing a mapping between internal metadata for a database and external metadata, the method comprising:

- reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;
- generating and displaying a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;
- receiving from a user a selection of a portion of the grid, the selection indicating the internal metadata to be mapped to the external metadata;
- in response to receiving the user selection:
 - determining if the external metadata describing all data points within said selection is predefined, and if so, receiving from said user a definition of external metadata comprising:
 - presenting said user a list from which they may select an item of predefined metadata; and
 - receiving from said user a selection of an item of predefined metadata from said list; and
 - determining if a syntax of the external metadata describing all data points within said selection is predefined and the external metadata for said selection is not predefined, and if so, receiving from said user a definition of external metadata comprising:
 - presenting said user with one or more dialog boxes in which they can specify external metadata to be created; and

receiving from said user a specification of external metadata to be created; and

determining if neither the external metadata describing all data points within said selection is predefined nor the syntax of the external metadata describing all data points within said selection is predefined, and if so creating new internal metadata comprising:

creating a new row or column in the grid;

receiving a formula involving the user selection of a portion of the grid;

entering the formula into a cell in the new row or column; and

repeating the steps of determining if the external metadata describing all data points within said selection is predefined and determining if a syntax of the external metadata describing all data points within said selection is predefined; and

creating a mapping between the internal metadata of the selected portion of the grid and the external metadata based on the user selections.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The method of claim 1, wherein said list is provided in a tree control.

5. (Canceled)

6. (Previously Presented) The method of claim 1, wherein said presenting includes presenting said user with a dialog box in which they can specify an entity for said external metadata to be created.

7. (Previously Presented) The method of claim 1, wherein said presenting includes presenting said user with a dialog box in which they can specify units for said external metadata to be created.

8. (Previously Presented) The method of claim 1, wherein said presenting includes presenting said user with a dialog box in which they can specify a time period for said external metadata to be created.

9. (Previously Presented) The method of claim 1, wherein said presenting includes presenting said user with a dialog box in which they can specify a scenario for said external metadata to be created.

10. (Original) The method of claim 9, wherein a control for said dialog box is a tree control when an element button is selected and a text field when a custom button is selected.

11. (Original) The method of claim 1, wherein said selection is one or more rows in said grid.

12. (Original) The method of claim 1, wherein said selection is one or more columns in said grid.

13. (Previously Presented) The method of claim 1, wherein said selection is one or more individual cells in said grid, wherein said one or more individual cells do not comprise an entire row or an entire column.

14. (Original) The method of claim 13, wherein preexisting mappings for rows or columns containing said selection are overwritten for said selected individual cells.

15. (Currently Amended) ~~The method of claim 1, further comprising:~~

A method for establishing a mapping between internal metadata for a database and external metadata, the method comprising:

reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

generating and displaying a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

receiving from a user a selection of a portion of the grid, the selection indicating the internal metadata to be mapped to the external metadata;

in response to receiving the user selection;

determining if the external metadata describing all data points within said selection is predefined, and if so, receiving from said user a definition of external metadata comprising;

presenting said user a list from which they may select an item of predefined metadata; and

receiving from said user a selection of an item of predefined metadata from said list; and

determining if a syntax of the external metadata describing all data points within said selection is predefined and the external metadata for said selection is not predefined, and if so, receiving from said user a definition of external metadata comprising;

presenting said user with one or more dialog boxes in which they can specify external metadata to be created; and

receiving from said user a specification of external metadata to be created;

creating a mapping between the internal metadata of the selected portion of the grid and the external metadata based on the user selections; and

receiving from said user a formula involving one or more data items in said grid;

creating a new row or column in said grid;

entering said formula into a cell in said new row or column; and

wherein said selection includes said cell.

16. (Original) The method of claim 1, wherein said external metadata is Extensible Business Reporting Language (XBRL) metadata.

17. (Original) The method of claim 1, wherein an external metadata source is specified using a schema manager.

18. (Currently Amended) An apparatus that presents a user interface for establishing a mapping between internal metadata for a database and external metadata, the apparatus comprising a computer configured with:

- means for reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

- an internal metadata grid organizer configured to generate and display a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

- a grid portion user selection receiver coupled to the internal metadata grid organizer to receive from a user a selection of a portion of the grid, the selection indicating one or more cells of the grid containing internal metadata to be mapped to external metadata in an external system;

- means for determining the internal metadata displayed on the grid that corresponds to the one or more cells, the internal metadata corresponding to the one or more cells forming a subset of the internal metadata displayed on the grid;

- a predefined external metadata selection determiner, wherein said external metadata selection determiner determines if all external metadata of the user selection is predefined, and if so presents a user definition receiver including:

- a predefined metadata list presenter; and

- a predefined metadata list item receiver coupled to said predefined metadata list presenter; and

an external metadata syntax determiner wherein said external metadata syntax determiner determines if a syntax for all external metadata of the user selection is predefined, and if so, presents a user definition receiver including:

an external metadata dialog box presenter; and

an external metadata specification receiver coupled to said external metadata dialog box presenter; and

a new row or column creator, wherein said new row or column creator determines if the user selection has neither all external metadata of the user selection predefined nor the syntax for all external metadata of the user selection predefined, and if so, creates a new row or column including:

a user formula receiver;

a new row or column creator coupled to said user formula receiver and to said internal metadata grid organizer;

a new row or column user formula placer coupled to said new row or column creator and to said user formula receiver.

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Currently Amended) ~~An apparatus~~ A non-transitory computer readable medium containing a program thereon which when executed by a computer cause the computer to present that presents a user interface for establishing a mapping between internal metadata for a database and external metadata, the user interface apparatus comprising instructions which cause the computer to: ~~a computer configured with:~~

~~means for reading read~~ the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

~~means for generating and displaying~~ generate and display a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

~~means for receiving~~ receive from a user a selection of a portion of the grid, the selection indicating one or more cells of the grid;

~~means for determining~~ determine the internal metadata displayed on the grid that corresponds to the one or more cells, the internal metadata corresponding to the one or more cells forming a subset of the internal metadata displayed on the grid;

~~means for determining~~ determine if the external metadata describing all data points within said selection is predefined; wherein if the external metadata describing all data points within said selection is predefined, ~~means for receiving and if so, receive~~ from said user a definition of external metadata comprising:

~~means for~~ presenting said user a list from which they may select an item of predefined metadata; and

~~means for~~ receiving from said user a selection of an item of predefined metadata from said list; and

~~means for determining~~ determine if syntax of the external metadata describing all data points within said selection is predefined; wherein if the external metadata describing all data points within said selection is not predefined, but syntax of the external metadata describing all data points within said selection is predefined, ~~said means for receiving and if so, receive~~ from said user a definition of external metadata comprising; ~~comprises~~:

~~means for~~ presenting said user with one or more dialog boxes in which they can specify external metadata to be created; and

~~means for~~ receiving from said user a specification of external metadata to be created; and

determine if the external metadata describing all data points within said selection is not predefined and syntax of the external metadata describing all data points within said

selection is not predefined, and if so create a new column or row by performing steps comprising:

receiving from said user a formula involving one or more data items in said grid;
creating a new row or column in said grid;
entering said formula into a cell in said new row or column; and wherein said selection includes said cell.

24. (Canceled)

25. (Canceled)

26. (Previously Presented) The apparatus of claim 23, wherein said list is provided in a tree control.

27. (Canceled)

28. (Previously Presented) The apparatus of claim 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify an entity for said external metadata to be created.

29. (Previously Presented) The apparatus of claim 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify units for said external metadata to be created.

30. (Previously Presented) The apparatus of claim 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify a time period for said external metadata to be created.

31. (Previously Presented) The apparatus of claim 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify a scenario for said external metadata to be created.

32. (Original) The apparatus of claim 31, wherein a control for said dialog box is a tree control when an element button is selected and a text field when a custom button is selected.

33. (Original) The apparatus of claim 23, wherein said selection is one or more rows in said grid.

34. (Original) The apparatus of claim 23, wherein said selection is one or more columns in said grid.

35. (Original) The apparatus of claim 23, wherein said selection is one or more individual cells in said grid.

36. (Original) The apparatus of claim 35, wherein preexisting mappings for rows or columns containing said selection are overwritten for said selected individual cells.

37. (Canceled)

38. (Original) The apparatus of claim 23, wherein said external metadata is Extensible Business Reporting Language (XBRL) metadata.

39. (Original) The apparatus of claim 23, wherein an external metadata source is specified using a schema manager.

40. (Previously Presented) The method of Claim 1 wherein:
the internal metadata describes data, contained in the database, from which a report is to be generated; and
the screen includes tools for designing the report.

41. (Previously Presented) The apparatus of Claim 18 wherein:
the internal metadata describes data, contained in the database, from which a report is to be generated; and
the screen includes tools for designing the report.

42. (Previously Presented) The apparatus of Claim 23 wherein:
the internal metadata describes data, contained in the database, from which a
report is to be generated; and
the screen includes tools for designing the report.